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10/559,518	12/06/2005	Yoshikazu Takashima	280760US6PCT	5266
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.			KING, JOHN B	
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ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
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			09/16/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/559,518	<b>Applicant(s)</b> TAKASHIMA ET AL.
	<b>Examiner</b> John B. King	<b>Art Unit</b> 2435

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 30 June 2010.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-6 and 8-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-6 and 8-12 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/GS-68)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to applicant's amendment filed on June 30, 2010.
2. Claims 1-6 and 8-12 are pending in this application.
3. Applicant's arguments in respect to the new issues of Claims 1-6 and 8-12 have been considered but they are not fully persuasive.

***Response to Arguments***

4. Applicant's amendments are accepted as overcoming the 35 U.S.C. 101 rejection of the previous Office Action dated April 1, 2010.
5. Applicant's arguments filed June 30, 2010 have been considered but they are not fully persuasive. In the remarks applicant argues:
  - I) The cited prior art does not teach "the entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer".

In response to applicant's arguments:

I) Applicant's entity code is used to identify an entity that is used in the manufacturing route of a recording medium, such as the manufacturer and the authoring studio. Both of these entities are disclosed in AAPA as being part of the manufacturing process of the medium. Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes, but is silent regarding the use of an authoring studio code. AAPA, page 4, teaches the use of an authoring studio as part of the manufacturing process, and it would have been obvious to include the authoring studio code (of AAPA) as well as the manufacturing code (of Shimoda) as part of the entity code to be used to uniquely identify the disc. This would have been obvious to one of ordinary skill in the art as this would be choosing one code from a finite number of possible identifying codes, with a reasonable expectation of success. This code would represent an entity used in the manufacturing route of the medium that uniquely identifies the disc. The addition of the multiple codes would provide for easier detection of piracy and would also make it harder to fake the different codes as there are more codes that would have to be faked to be able to use\copy the disc.

***Examiner Notes***

6. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US Patent 6289102 B1, published September 11, 2001) hereinafter referred to as Ueda in view of Shimoda (US Patent 6381202 B1, file October 25, 2000) and further in view of Applicant's Admitted Prior Art (AAPA) pages 1-7.

As per claim 1, Ueda discloses A non-transitory information recording medium storing encrypted content, comprising: a first recording area including content and an entity code that is set for each entity included in a manufacturing route of said information recording medium, wherein the first recording area includes an encryption processing unit that is encrypted by a key generated based on a seed that provides encryption processing key generating information for each encryption processing unit, wherein said entity code is stored in an encrypted area that is encrypted by said key generated based on said seed, said encrypted area not overlapping an area in which said seed is recorded (**Ueda, col. 3 line 45 – col. 4 line 42, teaches a medium**

**storing encrypted content. This encrypted content is encrypted with a second content key and stored on the medium. The second content key is encrypted by a first content key which is also stored on the medium. The encrypted content is later retrieved by decrypting the content using the second key which is decrypted by the first key. Ueda, Figure 3, also teaches the use of a seed to generate keys.)**

However, Ueda does not specifically teach wherein said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer.

Shimoda discloses wherein said entity code includes a disc manufacturer code (DMC) (Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes.)

Ueda and Shimoda are analogous art because they are from the same field of endeavor of recording information onto mediums for later retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Shimoda because this would allow disc manufacturers to put a manufacturing code on all of their discs to prevent piracy. This would result in the disc manufacturing code being stored on the disc in encrypted form and later decrypted to be used to prevent the disc from being copied illegally.

However, Ueda in view of Shimoda does not specifically disclose including an authoring studio code on the disc.

AAPA discloses including an authoring studio code (ASC) (AAPA, page 4, teaches that authoring studios are used in the manufacturing process of a disc.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda and Shimoda by adding an authoring studio code on the disc as this would better identify the disc manufacturer. It would have been an obvious design choice to include either an authoring studio code, disc manufacturer code, or both on the disc to be able to later identify the disc manufacturer. It would have been obvious to try this as this would be choosing from a finite number of possible identifying codes to represent an entity used in the manufacturing route of the medium that would uniquely identify the disc, with a reasonable expectation of success. The addition of the multiple codes would provide for easier detection of piracy and would also make it harder to fake the different codes as there are more codes that would have to be faked.

As per claim 2, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 [**See rejection to claim 1 above**], wherein said encryption processing unit is set as a collective data area including a plurality of packets and said seed is set as data having a predetermined number of bits from start data of a start packet of said encryption processing unit; and said entity code is stored as a payload of each of said plurality of packets and stored in a data area not overlapping an area of bits constituting said seed (**Ueda, col. 3 line 45 – col. 4 line 42, teaches the data being stored on the medium in a plurality of sectors. Ueda also teaches the second key being stored as the payload of decrypting by the first key and being used to decrypt the content data. Ueda, Figure 3, teaches the seed being stored on disk in a certain area of the medium.**)

As per claim 6, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 **[See rejection to claim 1 above]**, wherein said information recording medium includes (1) a first seed, which is key generating information set for said encryption processing unit, (2) an encrypted second seed, which is key generating information encrypted based on a first block key generated by said first seed, and (3) encrypted content and an encrypted entity code encrypted based on a second block key generated based on said second seed (Ueda, col. 3 line 45 – col. 4 line 42, teaches the second key being encrypted by the first key and the content being encrypted by the second key. The content and the second key are stored in encrypted for whereas the first key is stored in clear text. Ueda, Figure 4, teaches seeds being used to generate keys.)

9. **Claims 3-5, and 8-12** as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Shimoda and AAPA and further in view of Teunissen (US Patent 6512882 B1, filed May 7, 1999).

As per claim 3, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 **[See rejection to claim 1 above]**.

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table (PMT) specified by the MPEG standard and said entity code provides data constituting a start packet of a plurality of divided packets storing said program map table (PMT) in a program information

area of said program map table (PMT) (**Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.**)

Ueda and Teunissen are analogous art because they are from the same field of endeavor of storing data on a medium to be read later. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-38, teaches the use of the MPEG standard in recording data onto a medium. The use of the PMT with the MPEG standard is well known and expected in the art.

As per claim 4, Ueda in view of Shimoda, AAPA, and Teunissen discloses The information recording medium according to claim 3 [**See rejection to claim 3 above**], wherein said start packet of said plurality of divided packets is a transport stream packet having a payload of 183 bytes and said entity code is stored as data within 183 bytes from start data of said program map table (PMT) in said program information area of said program map table (PMT) (**Teunissen, Figure 2, teaches the packet payload being 184 bytes. Making the packet payload be 183 bytes would have been an obvious design choice.**)

As per claim 5, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 [**See rejection to claim 1 above**].

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table (PMT) specified by the MPEG standard; and said program map table (PMT) is stored as a payload of

each of a plurality of transport stream packets in a divided manner (**Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.**), and each of said plurality of transport stream packets is attached with timestamp information to be stored in said information recording medium as a source packet in a distributed manner (**Teunissen, Figure 1, teaches the packets having a time code.**)

Ueda and Teunissen are analogous art because they are from the same field of endeavor of storing data on a medium to be read later. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-38, teaches the use of the MPEG standard in recording data onto a medium. The use of the PMT with the MPEG standard is well known and expected in the art.

As per claims 8 and 12, Ueda discloses A data processing method for generating data to be written to an information recording medium, comprising: setting a position at which an entity code for an entity included in a manufacturing route of said information recording medium is to be recorded and setting said entity code (**Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted form and encrypted by a first key.**); generating a plurality of packets in which entity code is stored in a divided manner; arranging said plurality of packets in a content stored packet sequence in a distributed manner (**Ueda, col. 3 line 45-col. 4 line 42, teaches the data being broken into sectors to be stored on the medium.**); and encrypting data included in an encryption processing unit by use of a key generated based on a seed, which is encryption processing key

generating information that is set for said encryption processing unit (**Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key. Ueda, Figure 4, teaches using a seed to generate keys.**), wherein said setting step includes executing control such that said entity code is included in an encrypted area encrypted by a key generated based on said seed without overlapping an area in which said seed is set (**Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key.**)

However, Ueda does not specifically teach wherein said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer.

Shimoda discloses wherein said entity code includes an authoring studio code (ASC) and a disc manufacturer code (DMC) (**Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes.**)

Ueda and Shimoda are analogous art because they are from the same field of endeavor of recording information onto mediums for later retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Shimoda because this would allow disc manufacturers to put a manufacturing code on all of their discs to prevent piracy. This would result in the disc manufacturing code being stored on the disc in encrypted form and later decrypted to be used to prevent the disc from being copied illegally.

However, Ueda in view of Shimoda does not specifically disclose including an authoring studio code on the disc.

AAPA discloses including an authoring studio code (ASC) (**AAPA, page 4, teaches that authoring studios are used in the manufacturing process of a disc.**)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda and Shimoda by adding an authoring studio code on the disc as this would better identify the disc manufacturer. It would have been an obvious design choice to include either an authoring studio code, disc manufacturer code, or both on the disc to be able to later identify the disc manufacturer. It would have been obvious to try this as this would be choosing from a finite number of possible identifying codes to represent an entity used in the manufacturing route of the medium that would uniquely identify the disc, with a reasonable expectation of success. The addition of the multiple codes would provide for easier detection of piracy and would also make it harder to fake the different codes as there are more codes that would have to be faked.

However, Ueda in view of Shimoda and AAPA does not specifically teach that the data is stored in a program map table.

Teunissen discloses wherein said entity code is stored in a program map table  
**(Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.)**

Ueda and Teunissen are analogous art because they are from the same field of endeavor of storing data on a medium to be read later. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-

38, teaches the use of the MPEG standard in recording data onto a medium. The use of the PMT with the MPEG standard is well known and expected in the art.

As per claim 9, Ueda in view of Shimoda, AAPA, and Teunissen discloses The data processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said encryption processing unit is a collective data area of a plurality of packets, said seed is data having a predetermined number of bits from start data of a start packet of said encryption processing unit; and said setting step includes setting said entity code to a data area that does not overlap an area of bits constituting said seed (**Ueda, col. 3 line 45 – col. 4 line 42, teaches the data being stored on the medium in a plurality of sectors. Ueda also teaches the second key being stored as the payload of decrypting by the first key and being used to decrypt the content data. Ueda, Figure 3, teaches the seed being stored on disk in a certain area of the medium.**)

As per claim 10, Ueda in view of Shimoda, AAPA, and Teunissen discloses The data processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said setting step comprises setting said entity code in a program information area of said program map table (PMT) specified by the MPEG standard and to a position of data constituting a start packet of a plurality of divided packets storing said program map table (PMT) (**Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.**)

As per claim 11, Ueda in view of Shimoda, AAPA, and Teunissen discloses The information processing method according to claim 10 [**See rejection to claim 10 above**], wherein said start packet of said plurality of divided packets is a transport stream packet having a payload of 183 bytes and said setting step comprises setting said entity code as data in said program information area of said program map table (PMT) and within 183 bytes from start data of said program map table (PMT) (**Teunissen, Figure 2, teaches the packet payload being 184 bytes. Making the packet payload be 183 bytes would have been an obvious design choice.**)

#### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. King whose telephone number is (571) 270-7310. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B King/  
Examiner, Art Unit 2435  
/Kimyen Vu/  
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